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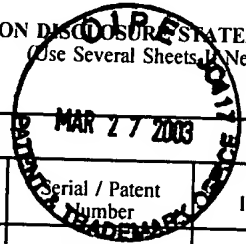
INFORMATION DISCLOSURE STATEMENT BY APPLICANT  
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(37 CFR § 1.98(b))

Applicant: Peter A. Ward *et al.*

Filing Date: 08/30/00

Group Art Unit: ~~1641~~ 1644



U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	Serial / Patent Number	Issue Date	Applicant / Patentee	Class	Subclass	Filing Date
AV	1	4,357,272	11/02/82	Polson	<del>260</del>	<del>142 R</del>	3/15/79
	2	5,051,448	9/24/91	Shashoua	<del>514</del>	<del>547</del>	5/07/90
	3	5,169,862	12/08/92	Burke, Jr. et al.	<del>514</del>	<del>450</del>	11/18/91
	4	5,192,746	3/09/93	Lobl et al.	<del>514</del>	<del>11</del>	7/09/90
	5	5,260,203	1/09/93	Ladner et al.	<del>435</del>	<del>172.3</del>	4/25/90
	6	5,340,923	8/23/94	Carroll	<del>530</del>	<del>389.1</del>	11/17/92
	7	5,539,085	7/23/96	Bischoff et al.	<del>530</del>	<del>350</del>	8/20/93
	8	5,559,103	9/24/96	Gaeta et al.	<del>514</del>	<del>54</del>	7/20/94
	9	5,565,332	10/15/96	Hoogenboom et al.	<del>435</del>	<del>69.1</del>	9/23/92
	10	5,576,423	11/19/96	Aversa et al.	<del>530</del>	<del>388.75</del>	12/02/94
	11	5,585,089	12/17/96	Queen et al.	<del>424</del>	<del>133.1</del>	6/07/95
	12	5,658,727	8/19/97	Barbas et al.	<del>435</del>	<del>6</del>	4/10/92
	13	5,904,922	5/18/99	Carroll	<del>424</del>	<del>130.1</del>	5/16/95

FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS

	Document Number	Publication Date	Country / Patent Office	Class	Subclass	Translation	
						Yes	No
AV	14	EP 0025949 B1	01.04.81	EPO	ENGLISH CLAIMS ONLY		X
	15	WO 96/39503	12.12.96	PCT			
	16	EP 0245993 A2	19.11.87	EPO			

OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

AV	17	Ames RS <i>et al.</i> , "Isolation of Neutralizing Anti-C5a Monoclonal Antibodies from a Filamentous Phage Monovalent Fab Display Library." <i>J Immunol</i> 152:4572-4581 (1994)
	18	R.C. Bone, "The Pathogenesis of Sepsis," <i>Ann. Intern. Med.</i> 115:457-469 (1991)
	19	E.S. Caplan and N. Hoyt, "Infection Surveillance and Control in the Severely Traumatized Patient," <i>Am. J. Med.</i> 70:638-640 (1981)
	20	Caruthers <i>et al.</i> , "New chemical methods for synthesizing polynucleotides," <i>Nuc. Acids Res. Symp. Ser.</i> 7:215-233 (1980)
	21	Chow and Kempe, "Synthesis of oligodeoxyribonucleotides on silica gel support," <i>Nuc. Acids Res.</i> 9:2807-2817 (1981)
	22	Crea and Horn, "Synthesis of oligonucleotides on cellulose by a phosphotriester method," <i>Nuc. Acids Res.</i> 9:2331 (1980)
AV	23	<del>Croighton (1983) Proteins Structures And Molecular Principles, W H Freeman and Co, New York, N.Y.</del>
	24	Czermak BJ. <i>et al.</i> , "Protective effects of a C5a blockade in sepsis," <i>Nature Medicine</i> 5:788-792 (1999)
	25	<del>Davis <i>et al.</i>, Basic Methods in Molecular Biology, (1986)</del>
AV	26	Elzaim, <i>et al.</i> , "Generation of Neutralizing Antipeptide Antibodies to the Enzymatic Domain of <i>Pseudomonas aeruginosa</i> Exotoxin A." <i>Infect. Immun.</i> May;66(5):2170-9 (1998)
AV	27	Eyans <i>et al.</i> , "An engineered poliovirus chimaera elicits broadly reactive HIV-1 neutralizing antibodies," <i>Nature</i> 339:385-388 (1989)

Examiner: *[Signature]*

Date Considered: 6/23/03

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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MAR 27 2003 OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)					
28	Gerard C. <i>et al.</i> , "Amino Acid Sequence of the Anaphylatoxin from the fifth Component of Porcine Complement," <i>J. Biol. Chem.</i> 255(10):4710-4715, (1980)				
29	Gluzman, "SV40-Transformed Simian Cells Support the Replication of early SV40 Mutants," <i>Cell</i> , 23:175-182 (1981)				
30	Hatherhill JR <i>et al.</i> , "Effects of Anti-C5a Antibodies on Human Polymorphonuclear Leukocyte Function: Chemotaxis, Chemiluminescence, and Lysosomal Enzyme Release" <i>J of Biological Response Modifiers</i> 8:614-624 (1989)				
31	Hill, J.H. and Ward, P.A., "The Philogistic Role of C3 Leukotactic Fragments in Myocardial Infarcts of Rats," <i>J. Exp. Med.</i> 133:885-900 (1971)				
32	Hochuli <i>et al.</i> , "New Metal Chelate Adsorbent Selective for Proteins and Peptides Containing Neighbouring Histidine Residues," <i>J Chromatography</i> 411:177-184 (1987)				
33	A.M. Hoffman <i>et al.</i> , "Prognostic Variables for Survival of Neonatal Foals Under Intensive Care," <i>J. Vet. Int. Med.</i> 6:89-95 (1992)				
37	Huang <i>et al.</i> , "Vaccinia Virus Recombinants Expressing an 11-Kilodalton $\beta$ -Galactosidase Fusion Protein Incorporate Active $\beta$ -Galactosidase in Virus Particles," <i>J. Virol.</i> 62:3855-3861 (1988)				
35	W.K. Joklik <i>et al.</i> (eds.), <i>Zinsser Microbiology</i> , 18th ed., Chapter 27 <i>Streptococcus pneumoniae</i> , p. 485-489, Appleton-Century-Crofts, Norwalk, CT (1984)				
36	<del>Kennet, R.H., "Monoclonal Antibodies, Hybridoma: A New Dimension in Biological Analysis," Plenum Press, NY (1980)</del>				
37	Kettleborough, <i>et al.</i> , "Humanization of a mouse monoclonal antibody by CDR-grafting: the importance of framework residues on loop conformation," <i>Protein Engineering</i> 4(7):773-783 (1991)				
38	Kohl, J., and Bitter-Suermann, D., <i>Anaphylatoxins. Complement in health and disease.</i> , Edited by Whaley, K., Loos, M., Weiler, J.M., Kluwer Academic publishers, pp 299-324 (1993)				
39	Kohler, G. and Milstein, C., <sup>Continuous</sup> <del>Continuous</del> cultures of fused cells secreting antibody of predined specificity," <i>Nature</i> 256:495-497 (1975)				
40	Kola <i>et al.</i> , "Epitope mapping of a C5a neutralizing mAb using a combined approach of phage display, synthetic peptides and site-directed mutagenesis". <i>Immunotechnology</i> 1:115-126 (1996)				
41	Kozbor and Roder, "The production of monoclonal antibodies from human lymphocytes," <i>Immunol. Today</i> 4:72-79 (1983)				
42	Larrick JW <i>et al.</i> , "Characterization of Murine Monoclonal Antibodies That Recognize Neutralizing Epitopes on Human C5a" <i>Infection and Immunity</i> 55:1867-1872 (1987)				
43	G.W. Machiedo <i>et al.</i> , "Patterns of Mortality in a Surgical Intensive Care Unit," <i>Surg. Gyn. &amp; Obstet.</i> 152:757-759 (1981).				
44	Mandecki W, <i>et al.</i> , "Chemical synthesis of a gene encoding the human complement fragment C5a and its expression in <i>Escherichia coli</i> ," <i>Proc Natl Acad Sci U S A.</i> 82(11):3543-7 (1985)				
45	Matteucci and Caruthers, "The Synthesis of Oligodeoxypyrimidines on a Polymer Support," <i>Tetrahedron Lett</i> 21:719-722 (1980)				
46	M. Meek <i>et al.</i> , "The Baltimore Sepsis Scale: Measurement of Sepsis in Patients with Burns Using a New Scoring System." <i>J. Burn Care Rehab.</i> 12:564-568 (1991)				
47	Mohr M. <i>et al.</i> , "Effects of anti-C5a monoclonal antibodies on oxygen use in a porcine model of severe sepsis," <i>Eur J Clin Invest</i> 28:227-234 (1998)				
48	D.D. Morris <i>et al.</i> , "Endotoxemia in neonatal calves given antiserum to a mutant <i>Escherichia coli</i> (J-5)," <i>Am. J. Vet. Res.</i> 47:2554-2565 (1986)				
49	Mulligan, M.S. <i>et al.</i> , "Requirement and Role of C5a in Acute Lung Inflammatory Injury in Rats," <i>J. Clin. Invest.</i> 98:503-512 (1996)				
50	Nardelli <i>et al.</i> , "A Chemically Defined Synthetic Vaccine Model for HIV-1," <i>J. Immunol.</i> 148:914-920 (1992)				
51	R.L. Nichols in <i>Decision Making in Surgical Sepsis</i> , B.C. Decker, Inc., Philadelphia, "Classification of Surgical Wounds and Nonoperative Factors Influencing Surgical Wound Infection," pp. 20-21 (1991)				
52	Nilsson <i>et al.</i> , "Affinity Fusion Strategies for Detection, Purification, and Immobilization of Recombinant Proteins." <i>Protein Expression and Purification</i> 11:1-16 (1997)				
53	Olson, L.M., <i>et al.</i> , "The Role of C5 in Septic Lung Injury," <i>Ann. Surg.</i> 202:771-776 (1985)				
Examiner: <i>P. P. G. 9/21/98</i>			Date Considered: <i>6/23/03</i>		
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## OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

- 54 Park KW. *et al.*, "Attenuation of Endothelium-Dependent Dilation of Pig Pulmonary Arterioles After Cardiopulmonary Bypass Is Prevented by Monoclonal Antibody to Complement C5a," *Anesth Analg* 89:42-48 (1999)
- 55 Posnett *et al.*, "A Novel Method for Producing Anti-peptide Antibodies," *JBC* 263:1719-1725 (1988)
- 56 Protein Accession Number A57689/ GI "2118416"
- 57 Protein Accession Number P01032/ GI "116605"
- 58 Protein Accession Number P12082/ GI "116604"
- 59 Roberge *et al.*, "A Strategy for a Convergent Synthesis of N-Linked Glycopeptides on a Solid Support," *Science* 269:202-204 (1995)
- 60 Rothermel *et al.*, Nucleotide and corrected amino acid sequence of the functional recombinant rat anaphylatoxin C5a," *Biochim. Biophys. Acta* 1351:9-12, (1997)
- 61 Schlienger *et al.*, "Human Immunodeficiency Virus Type 1 Major Neutralizing Determinant Exposed on Hepatitis B Surface Antigen Particles is Highly Immunogenic in Primates," *J. Virol.* 66:2570-2576 (1992)
- 62 K.A. Schulman *et al.*, "Cost-effectiveness of HA-1A Monoclonal Antibody for Gram-Negative Sepsis," *JAMA* 266:3466-3471 (1991)
- 63 J.M. Slack and I.S. Snyder, *Bacteria and Human Disease*, pp. 128-133, Yearbook Medical Publishers (1978)
- 64 Solomkin, *et al.*, "Neutrophil dysfunction in sepsis. II. Evidence for the role of complement activation products in cellular deactivation," *Surgery* 90:319-327, (1981)
- 65 Stahel, *et al.*, "TNF- $\alpha$ -Mediated Expression of the Receptor for Anaphylatoxin C5a on Neurons in Experimental Listeria Meningoencephalitis," *J. Immunol.* 159(2):861-9 (1997)
- 66 Stevens JH. *et al.*, "Effects of Anti-C5a Antibodies on the Adult Respiratory Distress Syndrome in Septic Primates," *J Clin Invest* 77:1812-1816 (1986)
- 67 ~~Geyer ed., Biochemistry, 2nd ed., WH Freeman and Co. (1981)~~
- 68 Van Epps, *et al.*, "Relationship of C5a Receptor Modulation to the Functional Responsiveness of Human Polymorphonuclear Leukocytes to C5a," *J. Immunol.* 150:246-252 (1993)
- 69 Ward, P.A. & Becker, E.L., "The Deactivation of Rabbit Neutrophils by Chemotactic Factor and the Nature of the Activatable Esterase," *J. Exp. Med.* 127:693-709 (1968)
- 70 Wilson, *et al.*, "The Structure of an Antigenic Determinant in a Protein," *Cell* 37:767-778 (1984)
- 71 S.M. Wolff, "Monoclonal Antibodies and the Treatment of Gram-Negative Bacteremia and Shock," *New Eng. J. Med.* 324:486-488 (1991)
- 72 G.P. Youmans *et al.*, *Biologic and Clinical Basis of Infectious Diseases*, 3d ed., "Central Nervous System Infection: General Consideration," pp. 552-568, W.B. Saunders Co., (1985)
- 73 Zarbock, J., *et al.*, "A proton nuclear magnetic resonance study of the conformation of bovine anaphylatoxin C5a in solution," *FEBS Lett.* 238(2), 289-294 (1988)
- 74 Zhong G. *et al.*, "Production, specificity, and functionality of monoclonal antibodies to specific peptide-major histocompatibility complex class II complexes formed by processing of exogenous protein" *Proc Natl Acad Sci USA* 94:13856-13861 (1997)
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- 76
- 77
- 78
- 79
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